Eiffel. This name probably sounds familiar. When the name Eiffel is heard, it is most likely associate with the Eiffel Tower. However, he has done more, much more. From buildings, to bridges, to statues, he has done it. There is one Statue that we all know that Eiffel had a big hand in. The Statue of Liberty. Primarily, it’s Internal Skeleton. Alexandre Gustave Eiffel has quite a resume. Along with the Eiffel Tower, Eiffel has planned and engineered many other structures, all around the world. From Ruhnu Lighthouse in Estonia to the Mona Island Lighthouse in Peru, he has done it. All these many engineering experiences had made Eiffel ready and willing to take on maybe his most challenging structure, the internal skeleton of the Statue of Liberty.

Along with Frederic Bartholdi and Richard Hunt, Eiffel designed and engineered the most important aspect of the Statue of Liberty. He engineered the internal skeleton. He was also responsible for the overall rising of the Statue of Liberty. Of course, one minor miscalculation could have jeopardized the Statue of Liberty’s stability so mathematical accuracy is very important. Eiffel had the large responsibility of monitoring all Math operations. Alexandre Gustave Eiffel’s past architectural advances influenced the internal skeleton of the Statue of Liberty. Just think, in your body their are lots of bones holding up your body and your MUSLES THAT what the internal skeleton does for the Statue.

Without the Internal Skeleton the Statue of Liberty will fall and crumble. The Internal Skeleton helps the Statue to prevail against harsh weather. The statue of liberty wouldn’t have been here today without its internal skeleton. In comparison to we wouldn’t be here today without the bones in our body. Our bones are what helps us to stay up and helps the structure of our body. We as a human being have a lot in common to the structure and insides of the statue of liberty. What do you think the statue will look like without the internal skeleton? I know what you’re thinking it probably wouldn’t be the sight it is today. Just a pile of rubble! Your probably right and think what we will look like without bones in our body. That’s why the internal skeleton is very important part of the statue. Even though many don’t know it’s even there.

The internal skeleton of the Statue of Liberty is primarily made of iron pylon that is ninety-six feet (29.54 meters) high, a lighter skeletal system that is attached to the pylon, and a skin-support and attachment system. Only about the first two parts of the skeleton are triangulated for rigidity. The pylon serves as the central attachment point for a complex asymmetrical girder of the lightweight truss work that formed the statue’s body. The lightweight truss work is actually just metal bars that are bolted at one end and stretches out to the pylon tower and to the interior of the statue’s skin, thus forming a flexible suspension against which the sculpted plates adhere. The freedom and elasticity allows the skin of the statue to adjust to expansions and contractions caused by temperature changes and to resist high winds. That is the reason it has so little copper.

The internal skeleton helps the copper withstand breakage and damage. The statue’s copper is 3/32in. thick. It is almost the same as two pennies put together. Some people think that the statue was just painted green, or was tinted. That theory is terribly wrong. The reason the statue has the color it has is because the statue’s copper has a naturally oxidized form that gives it a “patina” green coating. The only reason the color doesn’t wear out is because the patina is thick in many places. Also the copper behind it is protecting it from naturally wearing away.